

New Methods of Induction Heating (Cont.)

Call Nr: None given

COVERAGE: A description of high-efficiency inductors with magnetic ferrite circuits is given and their practical use for hardening of metal parts, internal surfaces, gears, etc, with high-frequency current heating is explained. The following Soviet contributors to the study of induction heating are mentioned: Vologdin, V. P., (p. 5), Babat, G.I., (p. 6), Donskoy, A. V., Dr. of Tech. Sci., (pp. 7, 42), Berezovskiy, V. N., Eng., (p. 25), Spivak, E. D., and Kagan, Ye. S., (p. 26), Ivenskiy, G. V., (p. 42), Kidin, I. N., (p. 43), Slukhotskiy, A. Ye, and Ryskin, S. Ye. (p. 56), and the author (p. 26, author's certificate). The Central Scientific Research Institute of Technology and Machinery (TsNIITMASH) is also mentioned (p. 56). Several Soviet types of induction heaters are described in the text and some specifications and detailed illustrations are given. There are 3 references, 2 of which are Soviet and one is a Russian translation of an American book.

Card 2/5

Call Nr: None given

New Methods of Induction Heating (Cont.)

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Card 4/5

RUSSIYAN, A.V.; SAKHARNOV, A.A.

Investigating the resistance of alloys to hot cracking in
the weld-affected zone. Avtom. svar. 17 no.9:22-27 S '64.
(MIRA 17:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii imeni I.P. Bardina.

RUSSIYAN, A.V.; MATSNEV, E.P.; PUTIMTSEVA, O.I.

Studying the resistance of the KhN35VTIU alloy to the formation
of hot cracks in the weld zone. Sbor. trud TSNIICHM no.35:143-
153 '63. (MIRA 17:2)

I 44796-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b)/EWA(g) Pt-4 JD/RW

ACCESSION NR: AP5009783

UR/0133/65/000/004/0379/0379

AUTHOR: Russiyan, A. V. (Candidate of technical sciences); Sakharov, A. A. ²⁰
(Engineer) _BTITLE: A unit for electrical-resistance heating of hard-to-deform alloys in
drawing ₁₆

SOURCE: Stal', no. 4, 1965, 379

TOPIC TAGS: refractory metal wire, wire hot drawing, wire heating, electrical
resistance heating unit

ABSTRACT: The experimental plant of the TsNIChM im. I. P. Bardin has developed and put in operation an attachment to a drawing bench for resistance heating of hard-to-deform alloys. The wire rod (or tube) passes through a bath filled with a graphite lubricant and contacts the first electrical roller terminal submerged in the lubricant. The lubrication bath is mounted on an insulated textolite plate. The drawing die mounted at a distance outside the bath is the second electrical terminal. The wire rod covered with a thin layer of the lubricant is at the ambient temperature as it emerges from the bath. In passing through the distance between the terminals, the wire heats up, the lubricant film dries up and bakes, and the

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L 44796-65

ACCESSION NR: AP5009783

wire attains the required drawing temperature at the drawing die. The drawing temperature and the heating rate are controlled by varying the distance between the terminals, the drawing speed, and the current. A low voltage (10—12 v) current is supplied by an autotransformer. This unit, for which Author Certificate No. 157324 was issued, can be used on vertical, horizontal, and multiple-die drawing blocks. Two such units for drawing wire from 4 to 1.5 mm and from 1.5 to 0.3 mm in diameter are presently in operation at the experimental plant of the TsNIICHM, and more are planned for other plants. Orig. art. has: 2 figures. [MS]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MA

NO REF SOV: 000

OTHER: 000

ATD PRESS: 3256

MOB
Card 2/2

RUSSIYAN, A.V., kand.tekhn.nauk; MATSNEV, E.P., inzh.; SHORSHOROV, M.Kh.,
doktor tekhn.nauk

Tendency toward the formation of hot cracks in the weld affected zone
of KhN35VTiU and Kh60MVTiU alloys during arc welding. Svar.proizv.
no.10:10-13 O '64. (MIRA 18:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii
imeni I.P.Bardina (for Russiyan, Matsnev). 2. Institut metallurgii
imeni A.A.Baykova (for Shorshorov).

RUSSIYAN, A.V., Cand Tech Sci -- (diss) "Study of the weldability of 1Kh13N15B and 1Kh13N18B2BP type steels and development of electrodes for their welding." Mos, 1959. 29 pp with graphs (Acad Sci USSR. Inst of Metallurgy im A.A. Baykov), 150 copies. Printed on a duplicating machine. (KL, 38-59, 117)

L 15321-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) ASD(m)-3/AFETR/AFTC(p) MJW/JD

ACCESSION NR: AP4047012

S/0135/64/000/010/0010/0013

AUTHOR: Russiyan, A. V., (Candidate of technical sciences); Matsnev, E. P. (Engineer); Shorshorov, M. Kh. (Doctor of technical sciences)

TITLE: On the susceptibility of KhN35VTYu and KhN60MVTYu alloys to hot crack formation in the weld adjacent zone during arc welding

SOURCE: Svarochnoye proizvodstvo, no. 10, 1964, 10-13

TOPIC TAGS: nickel alloy, heat resistant alloy, welding, weldability, KhN35VTYu alloy, KhN60MVTYu alloy, weldability test

ABSTRACT: An extensive series of experiments was conducted in an attempt to determine the effect of individual alloying elements, melting conditions, and the arc heat input on the weldability of KhN35VTYu or EI787 and KhN60MVTYu or EP202 with emphasis on their susceptibility to hot crack formation in the weld adjacent zone during arc welding. The EP202 alloy was found to have the better weldability. Under conditions of low heat input and a boron content not exceeding 0.001%, no hot cracks were formed in the weld adjacent zone. Although EI787 alloy has the same range of hot brittleness as EP202, it, nevertheless, is

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L 15321-65

ACCESSION NR: AP4047012

much more susceptible to hot cracking. Electroslag or vacuum melting considerably reduces this susceptibility but does not eliminate it completely, especially in welding rigid articles and with boron content of about 0.009%. Orig. art. has: 8 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 004

OTHER: 000

ATD PRESS: 3138

Card 2/2

I 35517-65 EPA(s)-2/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c)

Pf-4 JD/HM

ACCESSION NR: AP5007336

S/0135/65/000/003/0011/0013

AUTHOR: Russiyan, A. V. (Candidate of technical sciences); Sakharnov, A. A.
(Engineer)

26
24
B

TITLE: Rapid quantitative determination of the resistance of metal to hot cracking
in welding

18

SOURCE: Svarochnoye proizvodstvo, no. 3, 1965, 11-13

TOPIC TAGS: welding, weld metal, weld hot cracking, hot cracking susceptibility,
hot cracking susceptibility evaluation, rapid evaluation

ABSTRACT: The TsNIICHM has developed and used since 1961 a device for rapid quantitative determination of weld resistance to hot cracking. The device is attached to the IMET-TsNIICHM testing machine. The device incorporates a bending mechanism which automatically begins to deform the crystallizing weld at a predetermined speed the moment the welding current is switched off. The lowest deformation speed at which cracks (observed visually) appear is the criterion of the weld resistance to hot cracking. Test specimens are made from the base metal (in nonconsumable-electrode welding without a filler metal) or from the filler wire metal. In welding dissimilar alloys, composite specimens are tested. The device makes possible an evaluation under identical stable conditions of the weld metal yielded by submerged-

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L 35517-65

ACCESSION NR: AP5007336

arc welding or by electrodes of any diameter and containing any alloying elements in the coating. Results of two-year field testing of many heat-resistant iron- or nickel-base alloys and high-strength stainless steels and alloys agreed satisfactorily with the results of metallographic analysis of industrial weldments, and made it possible to recommend the use of the device in the development and evaluation of new or existing filler materials and also for preliminary selection of the metal for electrode wires. Orig. art. has: 7 figures and 2 tables. [MS]

ASSOCIATION: TsNIICChM im. I. P. Bardina

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MM

NO REF SOV: 005

OTHER: 000

ATD PRESS: 3217

Card 2/2 *lo*

BOGDANOV, V.M.; LIFNITSKIY A.M.; RUSSIYAN, S.V.; SVERDLOV, V.I.;
STEPANOV, N.P.; VYSHEMIRSKIY, M.M., inzh., retsenzent

[Design of fully mechanized automated iron foundries] Pro-
ektirovanie kompleksno mekhanizirovannykh i avtomatizirovan-
nykh chugunoliteinykh tsekhov. Pod red. S.V.Russiana.
Moskva, Mashinostroenie, 1964. 322 p. (MIRA 17:10)

MIL'MAN, B.S.; LYASS, A.M.; TSYPIN, I.O.; KRAPUKHIN, V.M.; VALISOVSKIY, I.V.;
KLOCHNEV, N.I.; AVERBUKH, N.M.; KADNITSOV, V.G.; LIPNITSKIY, A.M.;
RUSSIYAN, S.V.; SKOBNIKOV, K.M.

"Iron founding handbook" edited by [doktor tekhn.nauk, prof.] N.G.
Girshovich. Book review by B.S.Mil'man and others. Lit. proizv.
no.8:46-47 Ag '62. (MIRA 15:11)
(Iron founding--Handbooks, manuals, etc.)
(Girshovich, N.G.)

ACCESSION NR: AP4043305

S/0032/64/030/008/1021/1021

AUTHORS: Sivergin, Yu. M.; Russiyan, Ye. K.; Frolov, P. V.; Bukolov, Yu. Ye.

TITLE: Apparatus for determining the hardness of plastics

SOURCE: Zavodskaya laboratoriya, v. 30, no. 8, 1964, 1021

TOPIC TAGS: polymer plastic, plastic hardness, hardness determination, motor RD 09, hardness tester

ABSTRACT: An apparatus was designed for testing the hardness of polymer plastics under identical conditions (see Fig. 1 of the Enclosure). It delivers loads of 0.5-48.5 kg in 0.5-kg intervals and produces plastic deformation at the rate of 0.04 mm/sec. Its activating mechanism 2, consisting of a reversing motor RD-09 and a reducer, activates the spindle 3 carrying indenter 4. Lever 5 bears against column 6. Loads 7 are suspended above the long arm of the lever and are lowered or raised by handles 9. Shaft 10 bears through prism 11 against the short arm of the lever. This shaft, carrying the object table 15, is moved vertically by an electromagnet under the influence of the applied load. Spindle movement is gauged by indicator 16 and shaft movement by indicator 17. The motor is connected and disconnected by handles 18 and 19. In operation, shaft 20 is lowered when

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Card

ACCESSION NR: AP4043305

the necessary loading is applied. The test specimen resting on table 15 is brought into contact with the indenter by nut 21, and the actuating mechanism is started with switch 22. The indenter is then impressed into the specimen at a constant rate until the stress in the material becomes equal to the applied load. At this moment the apparatus is automatically switched off and the table is freed by the electromagnet. Shaft 20 is next lifted and the motor is reversed. Orig. art. has: 1 figure.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 00

ENCL: 01

SUB CODE: IE, MT

NO REF SOV: 000

OTHER: 000

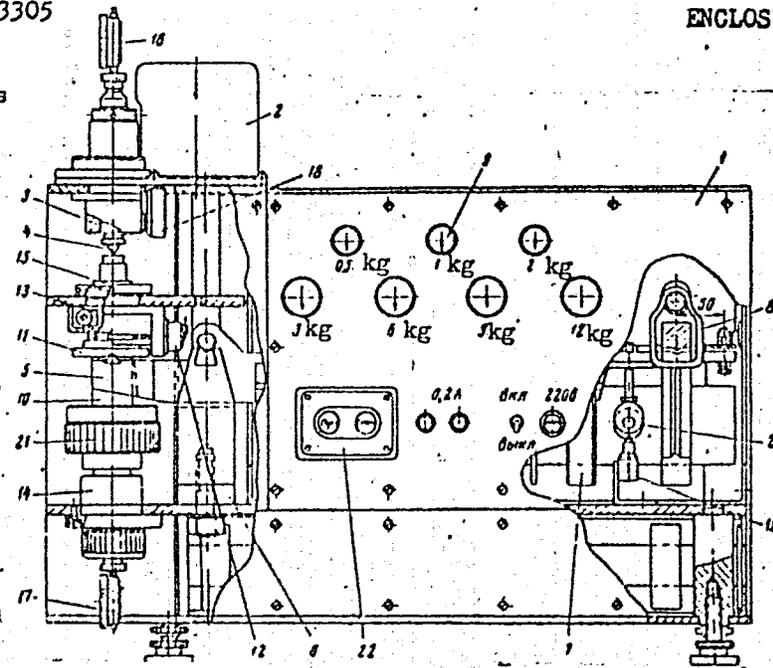
2/3

Card

ACCESSION NR: AP4043305

ENCLOSURE: 01

Fig. 1. Schematic drawing of hardness tester



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PETUKHOV, S.M.; RUSSIYAN, Ye.K.

Washing machine. Lab. delo no. 24116-120 465 (MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

KONDRAT'YEV, Yuriy Petrovich, inzh.; RUSSIYAN, Ye.V., red.; GRIGOR'YEVA,
I.S., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Progressive equipment for precision casting] Progressivnoe oboru-
dovanie dlia lit'ia po vyplavliaemym modeliam. Leningrad, 1962.
16 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen
peredovym opytom. Seria; Liteinoe proizvodstvo, no.6)

(MIRA 16:2)

(Precision casting—Equipment and supplies)

RUSNYAK, Ishtvan [Rusznayak, Istvan], akademik ; TERE, Imre, akademik

The course of Darwinism in Hungary. Agrobiologia no.5:746-751
S-0 '59. (MIRA 13:2)

1. Prezident Akademii nauk Vengrii (for Rusnyak).
(Hungary--Biological research)

RUSSECKI, J.

"Produkcja nasion buraka cukrowego" (Production of the sugar-beet seeds),
by J. Russecki. Reported in New Books (Nowe Książki), No. 13, July 1, 1955

WOJTCZAK, Andrzej; HANDLER, Joe; RUSSELL, Elkinton

Urinary hydrogen ion excretion in metabolic acidosis. Polski
tygod.lek. 15 no.43/44:1685-1688 24 0 '60.

(ACIDOSIS exper)

HUSSEN, V.I.

The SM-487A screen for screening dross. Stroi. 1 dor. mashinostr.
4 no.3:31-32 Mr '59. (MIRA 12:4)
(Wire screens)

RUSSEN, V.I., inzh.

The SM-4881 magnetic separator. Stroi.i dor.mashinostr. 3 no.12:24-25
D '58. (MIRA 11:12)

(Separators (Machines))

RUSSEN, V.I.

The SM-489 propeller mixer. Stroil dor.mashinostr. 3 no.10:27-28
0 '58. (Mixing machinery) (MIRA 11:11)

OSTAPYUK, F.Ye., kand.med.nauk; RUSSEN, Ye.V.

Unusual changes in the myocardium in cancer of the stomach
with metastases into the spine and sternum. Sov. med. 25 no.4:
138-142 Ap '62. (MIRA 15:6)

1. Iz terapevticheskoy kliniki (zav. - chlen-korrespondent
AMN SSSR prof. P.I. Yegorov) Tsentral'nogo instituta usover-
shenstvovaniya vrachey i patologoanatomicheskogo otdeleniya
(nauchnyy rukovoditel' - prof. A.V. Ryvkind) na baze Tsentral'noy
klinicheskoy bol'nitsy Ministerstva putey soobshcheniya.

(STOMACH--CANCER)

(SPINE--CANCER)

(STERNUM--CANCER)

(HEART--MUSCLE)

PONOMAREVA, Ye. D., dotsent; KLYUCHAREVA, Ye. A.; MAKAROVA, K. A.;
RUSSEN, Ye. V.

So-called osteoblastic forms of metastatic cancer. Terap. 34
no.1:100-105 '62. (MIRA 15:7)

1. Iz 4-y kafedry terapii (zav. - chlen-korrespondent AMN SSSR
prof. P. I. Yegorov) Tsentral'nogo instituta usovershenstvovaniya
vrachey na baze Tsentral'noy klinicheskoy bol'nitsy.

(BONES—CANCER)

RUSSECKIJ, I.I.

EXCERPTA MEDICA Sec.2 Vol.9/12 Physiology, etc. Dec 56

5593. RUSSECKIJ I.I. *Normal and pathological pupil reactions
(Russian text) Ž. NEVROPAT. PSIKHIAT. (Mosk.) 1955, 55/1 (69-71)
The history of the problem, the anatomy and physiology of the iris and pupil and the methods of examination are dealt with in parts I to III. Part IV is concerned with physiological and pathological mechanisms of pupil reactions. A relationship between size of the blind spot, width of the pupil and amplitude of the reaction to light is demonstrated. Only the parasympathetic innervation is considered to play an active part. Part V deals with the symptomatology of pupillary affections and part VI with syphilitic changes in the CNS. (II, 8, 12*)

RUSSEV L.
EXCERPTA MEDICA Sec 18 Vol. 2/8 Cardio Aug 58

2450. 'Rheumoseptic' endocarditis (Bulgarian text) RUSSEV L. Med. Dept., City Hosp., Svishtov Savr. Med. 1957, 8/7 (110—115)

In a clinical analysis of 163 patients with rheumocarditis, the author found 7 cases of 'rheumoseptic' endocarditis. He points out that the symptoms of 2 diseases --rheumatism and subacute septic endocarditis -- are intermingled in the clinical picture of rheumoseptic endocarditis. The course of the rheumoseptic forms of endocarditis may be stormy or it may be slow and creeping, with a transition from rheumatic to subacute septic endocarditis which can hardly be defined. The author supports his view with the case histories of 3 patients. It is pointed out that if they are subjected in time to a vigorous and intensive treatment with antibiotics and anti-rheumatic drugs patients suffering from this form of endocarditis recover readily.
(XVIII, 6, 50)

~~RUSSEV, V.V.~~
MARMUR, R.K.; RUSSEV, V.V.

~~Pathological and electrophysiological studies on experimental~~
neuritis. Vrach.delo supplement '57:86-87 (MIRA 11:3)

1. Odesskiy nauchno-issledovatel'skiy psikhonevrologicheskiy i
meditsinskiy institut.
(NEURITIS)

RUSSEVA N. V.

2773. RUSSEVA N. V. *Experimental data on embolism of the portal vein system (Russian text) ARKH. PATOL. (Moscow) 1953, 6 (33-37) Graphs 2

Experiments were made in 60 cats, weighing from 2 to 3 kg., in which, under pentothal narcosis, air embolism of the portal vein was produced by injecting air into a mesenteric vein. There was a transient, marked rise of blood pressure followed by hypotonia below the initial value. This reaction is considered to be of the nature of a nervous reflex, as it is decreased by novocaine and nicotine, and increased by atropine. There were also disturbances in the cardiac rhythm. By cutting the vagus and the sympathetic nerve and by resection of the spinal cord from the 4th to the 12th thoracic vertebra, the reflex arc was destroyed and the embolism reaction reduced to a minimum.

Brandt - Berlin

SO: Excerpta Medica, Section V, Vol. 7 No. 9

Chair Pathol. Physiol., Odessa Med. Inst. in. Prigorod

RUSSIN, V.V., Cand Med Sci --(disc)" Effect of caffeine and bro-
mine ¹³⁷ on the electric activity of the brain." Odesa, 1951. 14 pp
(Odessa State Med Inst i... Drogov), 200 copies
(M, 07-10, 100)

-70-

NOVIKOV, A.A., RUSSEV, V.V.

Recording electroencephalograms with an EKP-4M electrocardiograph.
Vrach.delo no.3:283 Mr'58 (MIRA 11:5)

1. Kafedra infeksionnykh bolezney (zav. - prof. L.K. Korovitskiy)
i kafedra normal'noy fiziologii (zav. - prof. F.M. Serkov) Odesskogo
meditsinskogo instituta.
(ELECTROENCEPHALOGRAPHY)
(ELECTROCARDIOGRAPHY)

MINTS, S.M., RUSSEVA, N.V.

Changes in intraocular and arterial pressure following injury
to the trigeminal nerve. Oft.zhur. 13 no.3:181-185 '58 (MIRA 11:6)

1. Iz kafedry patologicheskoy fiziologii Odesskogo meditsinskogo
instituta im. N.I. Pirogova.
(TRIGEMINAL NERVE--WOUNDS AND INJURIES)
(BLOOD PRESSURE)
(EYE)

RUSSEYEV, Georgiy Vasil'yevich

Organizatsiya i ekonomika avtomobil'nykh perevozok. Kiyev, Gostekhizdat
USSR, 1960.

315 p. charts, diagrs., graphs, tables.

Bibliography: p. 312.

RUSSI, N.

The coumarin content of sweet clover. p. 310.

GAZ, WODA I TECHNIKA SANITARNA. (Stowarzyszenie Naukowo-Techniczne
Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa)
Warszawa, Poland, Vol. 32, no. 6, June 1958.

Monthly list of East European Accession (LEAI) LC, Vol. 9, no. 2, Feb. 1960

Uncl.

RUSSIANOV, N. D.

4

Chemical Abst.
Vol. 48
Apr. 10, 1954
Organic Chemistry

Spectrophotometry of biuret complexes as a method of study of proteins and peptides. XVII. Direction of enolization in biuret reaction of peptides and proteins. M. I. Plekhan and N. D. Russianov (Moscow State Univ.). *Zhur. Obshchei Khim.* 24, 2302-2302 (1952); cf. C.A. 47, 7573a. — Formation of biuret complexes of optically active peptides and proteins does not lead to racemization, which fact indicates that the peptide links are enolized in this reaction. The biuret complex formation aids the preservation of optical activity of peptides and proteins under prolonged action of alkali. Optical activity of the peptides does not affect the character of their absorption spectrum as biuret complexes. Active forms of alanine were obtained by the action of papain on the racemic (benzyloxycarbonyl) deriv. in citrate buffer. (Benzyloxycarbonyl)-L-alaninamide, m. 150-60°, obtained as described above and hydrolyzed by heating 6 hrs. with concd. HCl, yielded 85.6% L-alanine, which gave the (benzyloxycarbonyl) deriv. m. 84°, $[\alpha]_D^{25} - 13^\circ$. (Benzyloxycarbonyl)-D-alanine, m. 82-4° (from H₂O), $[\alpha]_D^{25} 12.5^\circ$. The peptides were obtained by the usual Bergmann method; the acyl chlorides are poorly stable and the Et₂O solns. must be kept cold; to remove the H₃PO₄ from the (benzyloxycarbonyl)dipeptides the MeOH soln. of the product is treated with 10% Na₂CO₃ until alk. evapd. to dryness *in vacuo*; and extd. with MeOH, leaving behind Na phosphate. Reduction of the (benzyloxycarbonyl)dipeptides must be done in aq. medium in the presence of a little AcOH. Thus were obtained the (benzyloxycarbonyl) deriv. of racemic alanylalanine, oil, D-alanyl-D-alanine, m. 120°; and L-alanyl-L-alanine, oil. The tripeptides were also prepd. similarly: racemic alanylalanylalanine, L-alanyl-D-alanyl-L-alanine, decomp. 230°; L-alanyl-D-alanyl-L-alanine, decomp. 220°. (Rising, et al., C.A. 23, 1115). G. M. Kosolapov

RUSSIANOVA, N.D.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of solid mineral fuels

I-12

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12838

Author : Zabavin V.I., Gordiyenko N.P., Kleyменова L.A.,
Russianova N.D., Surkova V.L., Sharypkina M.Ya.

Title : On Chemical Composition of Coal and Its Change on Oxidation

Orig Pub : Khimiya, i tekhnol. topliva, 1956, No 5, 23-31

Abstract : Presented are the results of exhaustive "hot" extraction (in which the sample is heated by solvent vapor) of coal of different grades from the new deposits of the Kuznetsk coal fields, unoxidized and of different degree of disintegration, with alcohol-benzene and with 5% solutions of KOH in alcohol-benzene removes from coal of grade D and G₂ 3-12% of extract, ~ 1% from coal of grade Zh, and > 0.5% from coal of grades K-TS. Yield of extract from oxidized coal of grades G₁ and Zh₂ is higher than from

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RUSSIN N.P.
GUSEV, A.M.; RUSSIN, N.P.

Meteorological characteristics of the internal regions of East Antarctica based on observations carried out at the Pionerskaya station. Dokl. AN SSSR 117 no.1:68-71 N-D '57. (MIRA 11:3)

1. Predstavleno akademikom D.V.Shcherbakovym.
(Antarctic regions--Meteorology--Observations)

RUSSIN, T. A.

37454. Prochnaya kormovaya baza--glavnoye usloviye uspeshnogo vypolneniya trekhletnego plana razvitiya obshchestvennogo produktivnogo zivotnovodstva. V sb: Za vysokuyu Kul'turu zemledeliya. Kursk, 1949, s. 169-98.

SO: Letopis' Zhurnal'snykh Statey, Vol. 7, 1949.

25

PROCESSES AND PROPERTIES INDEX

CA

Rayon and oxygen bleaching. H. Rumina. *Monatsh. Seide u. Kunstseide* 36, 370-3(1933); *Chimie & industrie* 31, 666. Cotton is bleached by treating with a caustic alkali soln. and adding Na_2O_2 . To avoid danger of damaging the fiber, Mg and Ca silicates are necessary and are obtained by adding alkali silicate to the bath. These silicates act as stabilizers and retard the decompn. of H_2O_2 under the action of caustic alkalis. Cotton does not bleach in a neutral H_2O_2 soln.; best results are obtained with caustic alkali soln. contg. silicates. The process is applicable to viscose but not to cuprammonium or to acetate rayon. With viscose, alkali must not be added so as not to reduce the strength of the fiber; the excess base in the silicate is sufficient to liberate the available O and produce bleaching. A. Papineau-Couture

METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

LIST AND ONE LETTER

FROM SOURCE

LIST AND ONE LETTER

SHAPIRO, S.L.; RUSSINA, V.D.; CHEKUNOVA, I.I.; NEDOSEKIN, V.G.;
BIRNBAUM, K.L.

Effectiveness of anti-influenza vaccination with formaldehyde-killed vaccines with a stimulator. Zhur.mikrobiol. epid. i immun. no.9: 13-15 S '54. (MLRA 7:12)

1. Iz Moskovskoy sanitarno-epidemiologicheskoy stantsii Oktyabr'skogo rayona (glavnyy vrach Ye.R. Ivanova).

(INFLUENZA, prevention and control,

Russian mass vacc. with formaldehyde-killed vaccines with stimulator, results)

(VACCINES AND VACCINATION,

influenza, mass vacc. in Russia with formaldehyde-killed vaccines with stimulator, results)

RUSSINKOVSKIY, I.P., inzhener.

High-frequency induction heating practice. Vest.mash.36 no.3:55-58
Mr '56. (Induction heating) (MLRA 9:6)

~~RUSS INKOVSKIY, Leon Pavlovich~~; MONDRUS, D.B., kandidat tekhnicheskikh nauk, retsenzent; DONSKOY, A.V., doktor tekhnicheskikh nauk, redaktor; BORODULINA, I.A., redaktor izdatel'stva; SOKOLOVA, L.V., tekhnicheskiiy redaktor

[New practices in induction heating] Novoe v praktike induktsionnogo nagreva. Moskva, Gos.nauchno-tekhn.izd-vo mashino-stroit.lit-ry, 1957. 64 p. (MLDA 10:13)
(Induction heating) (Metals--Heat treatment)

RUSSINKOVSKIY, I.P.

Use of high-frequency induction heating in the metalworking industry
abovau. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. i tekh.-
inform. no.7:88-92 '62. (MIRA 15:7)
(Induction heating)

RUSSINOV, L., inzh., otv. za vypusk; KANOVICH, N., otv. red.;
PILKAUSKAS, K., tekhn. red.

[Collected materials on the exchange of experience] Sbor-
nik materialov po obmenu opytom. Vil'nius, 1961. 41 p.
(MIRA 15:10)

1. Lithuanian S.S.R. Liaudies ukio taryba.
(Lithuania—Confectionery)

EXCERPTA MEDICA Sec.11 Vol.11/1 Oto-rhino-lar. Jan 53

RUSSINOVA, V. A.

193. SYMPTOMS AND TREATMENT OF OTOGENOUS CEREBRAL ABSCESSSES
(Russian text). Russinova V. A. Leningrad, VESTN.OTO-RINO-LARING.
1957, 3 (12-16) Tables 1

The author observed 26 cases of cerebral abscesses: 11 of the right temporal lobe, 5 of the left temporal lobe, 9 of the cerebellum and one multiple abscess of the pons varolii. All the abscesses were caused by chronic suppurative middle ear inflammations and in most patients were complicated by meningitis or sinus thrombosis. All patients were treated surgically, by the open method of dissecting the abscesses and by the closed method (by puncture). Apart from surgical manipulations, sulphanimides and antibiotics were used. Better surgical methods and extensive use of antibiotics improved the prognosis of cerebral abscess: 20 out of 26 patients recovered. (XI, 8)

RUSSINOVSKIY, I. P.

AID P - 4316

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 16/26

Author : Russinovskiy, I. P., Engineer

Title : Experience in induction heating with high frequency current.

Periodical : Vest. mash., #3, p. 55-58, Mr 1956

Abstract : In order to decrease energy losses and consequently increase the efficiency of high-frequency induction heating used for surface hardening of steel parts, it is suggested that the inductors be made from special ferro-alloys called "oxyferris" (solid solutions of ferro-magnetic ferrites of nickel, manganese or magnesium with non-ferro-magnetic ferrite of zinc or cadmium). Photos, diagrams.

Institution : None

Submitted : No date

NOVIKOVA, L.A.; RUSSINOV, V.S.; SEMIOKHINA A.F.

Electrophysiological analysis of shunting function in the cerebral cortex in rabbit in the presence of dominant focus. Zh. vysshei nerv. deiat. 2 no. 6:844-861 Nov-Dec 1952. (CLML 24:1)

1. Physiological Laboratory of the Institute of Neurosurgery imeni Academician N. N. Burdenko of the Academy of Medical Sciences USSR.

ASTAP'YEV, A.S.; RUSSIYAN, A.V.

Welding EI-530, EI-628, and EI-629 austenite, acidproof steels.
Artem.svar.9 no.3:72-78 My-Je '56. (MIRA 9:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metal-
lurgii.
(Steel--Welding) (Welding--Testing)

RUSSIYAN, A.V.

15281* (Russian.) Welding of Austenitic Oxygen-Resistant Steels EI-530, EI-628, and EI-629. Svarka austenitnykh kislotoalkikh stalei EI-530, EI-628 and EI-629. A. S. Astaf'ev and A. V. Russiyan. *Soloma'icheskaya Scarka*, v. 9, no. 3, May-June 1958, p. 72-78.

Automatic and manual electric arc flux welding. Chemical composition of the sheets. Mechanical properties, including resistance to deformation.

AID P - 4836

Subject : USSR/Engineering

Card 1/1 Pub. 11 - 9/13

Authors : Astaf'yev, A. S. and A. V. Russiyan

Title : Welding of the EI-530, EI-628 and EI-629 austenitic stainless steels.

Periodical : Avtom. svar., 3, 72-78, Mr 1956

Abstract : The authors describe two methods of welding pipes made of stainless steels, comparing automatic welding with a fusing agent and manual electric arc welding, and illustrating the feasibility of welding these steels up to 2 mm thick and giving test data. Three tables and 6 photos.

Institution : Central Scientific Research Institute of Ferrous Metallurgy (TsNIICHERMET).

Submitted : 28 0 1955

RUSSIYAN, S.V., inzhener; BOGDANOV, V.N., inzhener.

Using ceramic molds and heated shell molds for casting large-
-size and thin-walled objects. Lit.proizv. no.6:4-7 Je '56.
(MLRA 9:8)

(Shell molding (Founding))

RUSSIYAN, A. V.

17

18

18

18AE2C

Welding of Austenitic Acid-Resisting EI-530 and EI-629
 (CrNiMoCu) Titanium-Stabilised and EI-628 (CrNiMo) Titan-
 ium-Stabilised Steels. A. S. Astafov and A. V. Russiyan.
 (Avtomaticheskaya Svarka, 1956, (3), 72-78). (In Russian).
 The compositions of the steels were as follows: EI-530: 0.06 C;
 0.50 Si; 0.61 Mn; 0.008 S; 0.0018 P; 17.45 Cr; 29.80 Ni;
 2.80 Mo; 0.21 Ti; 2.05 Cu. EI-629: 0.04 C; 0.38 Si; 0.50
 Mn; 0.008 S; 0.0250 P; 23.15 Cr; 27.40 Ni; 3.50 Mo; 0.34
 Ti; 3.30 Cu. EI-628: 0.04 C; 0.32 Si; 0.52 Mn; 0.010 S;
 0.0230 P; 23.20 Cr; 26.82 Ni; 2.48 Mo; 0.40 Ti;—Cu.
 A method is described for the manual arc welding and auto-
 matic welding with flux-coated electrodes. The tests were
 carried out on 2 mm thick plates at 152-162 feet per hour. As
 regards resistance to 20% boiling sulphuric acid, the welds
 of EI-530 and EI-629 steels are not inferior to the base metal.
 The mechanical properties of EI-629 and EI-628 were similar
 to those of the base metal but EI-530 was prone to intergranu-
 lar corrosion. R. S.

Handwritten initials and marks.

SOV-135-58-10-5/19

AUTHORS: Russian, A.V., Engineer, and Shorshorov, M.Kh., Candidate of Technical Sciences

TITLE: The Effect of Boron on the Tendency of Heat-Resistant Austenitic "1Kh13N18V2B" Steel to Hot Crack Formation in Welding Process (Vliyaniye bora na sklonnost' zharoprochnykh austenitnykh staley tipa "1Kh13N18V2B" k obrazovaniyu goryachikh treshchin pri svarke)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 10, pp 14 - 18 (USSR)

ABSTRACT: Experimental investigations were carried out by the authors at the welding laboratories of both the Institute of Metallurgy imeni A.A. Baykov AS USSR and TsNIIChermet, on the effect of boron on the proneness to hot crack formation of "1Kh13N18V2B" steel in arc welding and on the possibility of controlling the resistance to hot cracks by using different fluxes of standard grades and electrode rods, having the same composition as the base metal. It was stated that a boron content from 0 up to 0.015% reduces the temperature of the sharp reduction of plasticity in zones adjacent to seams from 1,150 to 1,010°C and expands the temperature interval of brittleness. The flux composition has a substantial effect on the tendency to hot cracks. Best results

Card 1/2

SOV-135-58-10-5/19

The Effect of Boron on the Tendency of Heat-Resistant Austenitic "1Kh13-N19V2B" Steel to Hot Crack Formation in Welding Process

were obtained in welding with "AN-26" flux, where a noticeable reduction of metal resistance to hot cracks occurred only if the boron content exceeded 0.005%. Highest passage of boron into metal is ensured by the use of "BKF-1", "AN-30" and "AN-26" fluxes. There are 3 tables, 1 graph, 2 diagrams, 2 sets of photos and 4 Soviet references.

TsNII Chernmet (1st author)

ASSOCIATION: /Institut metallurgii imeni A.A. Baykova, AN SSSR
Institute of Metallurgy imeni A.A. Baykov, AS. USSR)
(2nd author)

1. Steel--Welding 2. Boron--Effectiveness 3. Welding
fluxes--Applications

Card 2/2

18(5)
AUTHOR:

SOV/135-59-6-3/20
Russiyan, A. V., Engineer and Shorshorov, M. Kh., Candidate of Technical Sciences

TITLE:

New Austenite Electrodes for Welding 1Kh13N18V2B Steel

PERIODICAL:

Svarochnoye Proizvodstvo, 1959, Nr 6, pp 9-13 (USSR)

ABSTRACT:

The authors give the results of the investigation of new austenite-ferrite electrodes for welding the 1Kh13N18V2B steel. The investigation was carried out by TsNIChERMET and the Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences, USSR, during 1957-1958. There are described the methods [Ref 1, 2 and 4], used for the new invention: there has been applied the method of K. A. Lanskiy, TsNIChERMET [Ref 6 and 7] for EI 694, EI 695 and EI 695 R steels and EI 694 and EI 695 electrodes, (Table 1). Table 2 describes the construction of the protective shield. There have been constructed electrodes which produced melted metals without fissures by IMET-II [Ref 4 and 8]. The authors discuss the influence of alloy-elements and admixtures on the tendency

Card 1/3

New Austenite Electrodes for Welding

SOV/135-59-6-3/20

1Kh13N18V2B Steel

to form heat-fissures in welded metal. There are represented the electrodes AZh 13-18 and AZh 13-15. Table 3 shows the chemical construction of the electrodes and of melted metal. Moreover, several kinds of electrodes for welding special kinds of steel are named: NIAT-5 for Kh 15 N 25 steel kind EI 395; AZh 13-15 and AZh 13-18 for Kh 13 N 15 and Kh 13 N 18 steel grade EI 694, EI 695 R, KTI-7 for Kh 15 N 35 steel grade 612. Table 4 shows the comparison of electrodes, regarding the heat fissure forming tendency. The experiments with the new electrodes and the new methods have been accomplished in the laboratories of TsNIICHERMET and the "Machine-Building Plant Ordzhonikidze", Podol'sk (Podol'skiy mashinostroitel'nyy zavod imeni Ordzhonikidze). The results were satisfactory. In Table 5 there is shown the percussive toughness of seams with many layers in metal welded by AZh 13-18 electrodes. The authors state that the new austenite-ferrite electrodes AZh 13-18 and AZh 13-15 may be used in welding steels of the type 1Kh13N18V2B (EI 695 and EI 695 R) and 1Ch13N15B

Card 2/3

New Austenite Electrodes for Welding SOV/135-59-6-3/20
1Kh13N18V2B Steel

(EI 694). There are 2 diagrams, 5 tables, 3 photographs, 3 graphs and 9 references, 8 of which are Soviet and 1 German.

ASSOCIATION: Institut metallurgii imeni A. A. Baykova, AN, SSSR
(Institute of Metallurgy imeni A. A. Baykov, AS, USSR)
(M.Kh.Shorshorov), TsNII Chernet (A. V. Russiyan)

Card 3/3

30073

S/135/62/000/004/006/016/
A006/A101

18-1130
AUTHORS:

Shorshorov, M. Kh., Candidate of Technical Sciences, Sokolov, Yu. V.,
Engineer, Russiyar, A. V., Candidate of Technical Sciences, Matsnev,
E. P., Engineer, Kurkina, N. I., Candidate of Technical Sciences

TITLE:

The effect of the composition and structure of chrome-nickel steels
and alloys on hot crack formation in the weld-adjacent zone

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1962, 12-17

TEXT:

The authors studied the effect of some alloying elements, such as boron, aluminum, titanium, carbon and others, and also of the initial state of various steels and alloys on changes in their ductility and strength under thermal cycle conditions of the weld-adjacent zone in welding. The investigation was carried out by the WMBT-1 (IMET-1) method described in references 6 and 7. The results of the investigation are given in a table which contains also data on martensite, austenite-martensite and austenite-ferrite steel for comparison with chrome-nickel austenite steels and nickel alloys. The following conclusions are drawn. The proneness of alloys with similar alloying systems, to hot crack formation can be comparatively evaluated from the temperature when ductility and

Card 1/3

The effect of the composition ...

S/135/62/000/004/006/016
A006/A101

strength, determined in impact tension under conditions of the thermal welding cycle, are beginning to be recovered. Chrome-nickel austenite steels are more prone to hot crack formation in the weld-adjacent zone than austenite-ferrite, austenite-martensite and martensite steels. Cracking sensitivity of austenite steels increases with a higher nickel content. Proneness to hot cracks in the weld-adjacent zone of chrome-nickel austenite steels and nickel alloys increases with a higher content of boron, aluminum, titanium and carbon. However, in nickel alloys, the negative effect of boron is very marked at a higher content ($> 0.01 - 0.02\%$) than in austenite steels ($> 0.005 - 0.007\%$). Proneness to hot cracks in the weld-adjacent zone of austenite steels and nickel alloys can be reduced by refining the base metal with the aid of electric slag remelting or vacuum melting, grain refining, and increasing the quenching temperature within the limits of a permissible grain size. All these methods reduce segregation of alloying elements and harmful impurities at the grain boundaries: the former, indirectly, by reducing the total amount of impurities in the alloy and by their more uniform distribution; the latter two, directly, by reducing the concentration of elements and impurities at the boundaries. The study was carried out with the participation of Engineer V. V. Belov, and Candidate of Technical Sciences V. S. Sedykh from the Institute of Metallurgy imeni A. A.

Card 2/3

The effect of the composition ...

S/135/62/000/004/006/016
A006/A101

Baykov and Engineer Yu. P. Glukhov. The authors thank Candidate of Technical Sciences V. N. Zemzin from the TsKTI imeni I. I. Polzunova, for his assistance. There are 5 figures, 1 table and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATIONS: Institut metallurgii imeni A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov) (Shorshorov and Sokolov); TsNIChM imeni I. P. Bardin (Russiyan and Matsev)

Card 3/3

X

RUSSTYAN, A. V. (Candidate of Technical Sciences) (Техничен)

"Investigation of the deformation ability of heat-resistant steels and alloys in process of their cooling after welding" - indicated a positive influence of pure fusion materials on the stability of seam metal against cracks.

Report presented at the regular conference of the Moscow city administration NTO Mashprom, April 1963.
(Reported in Avtomaticheskaya Svarka, No. 8, August 1963, pp 93-95, M. M. Popekhin)

JPRS24,651 - 19 May 64

L 12610-65 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b) Pf-4
ACCESSION NR: AP4045456 JD/HM 8/0125/64/000/009/0022/0027

AUTHOR: Rusaiyan, A. V. (Candidate of technical sciences);
Sakharnov, A. A. (Engineer)

TITLE: Investigation of the resistance of alloys to the formation
of hot cracks in the heat-affected zone B

SOURCE: Avtomaticheskaya svarka, no. 9, 1964, 22-27

TOPIC TAGS: welding, special alloy welding, heat affected zone
metal, hot crack formation, hot cracking susceptibility determina-
tion, crack susceptibility determination method

ABSTRACT: A device and a method have been developed for quantitative
evaluation of susceptibility to hot cracking of metal in the heat-
affected zone. The method makes it possible to determine all indices
characterizing the susceptibility of an alloy to the formation of hot
cracks: the temperature range of brittleness, alloy ductility within
this range (taking into account the alloy shrinkage), and critical
speed of deformation of the metal in the heat-affected zone. The

Card 1/2

L 12610-65
ACCESSION NR: AP4045456

method also permits rapid and economical determination of the effect of various factors (e.g., the method of production and initial condition of the materials being welded or a change in the content of individual alloying elements) on the susceptibility to formation of hot cracks in the metal of the heat-affected zone. Orig. art. has: 7 figures and 5 formulas.

ASSOCIATION: TsNIICM im. I. P. Bardina

SUBMITTED: 21Jun64 ATD PRESS: 3108 ENCL: 00
SUB CODE: HM, IE NO REF SOV: 004 OTHER: 000

Card 2/2

I 9538-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) MJW/JD
ACC NR: AP5026288 SOURCE CODE: UR/0125/65/000/010/0007/0011

AUTHOR: ^{44.55} Russiyan, A. V. (Candidate of technical Sciences); ^{44.55} Salautin, V. A. (Engineer); ^{44.55} Pavperova, I. A. (Engineer); ^{44.55} Gnuchev, S. M. (Candidate of technical sciences)

ORG: ^{44.55} TsNIICHM ^{44.55}

TITLE: Resistance of austenitic steel EI847 to the formation of hot cracks during welding as a function of melting technology ^{44.55} ⁵² ^B

SOURCE: Avtomaticheskaya svarka, no. 10, 1965, 7-11 ^{44.55} ¹⁸ ⁷⁶

TOPIC TAGS: austenitic steel, hot crack, weld defect, metallurgic furnace, arc furnace, induction furnace, ferroalloy / EI847 (ØKh16N15M3B) austenitic steel

ABSTRACT: The purely austenitic EI847 (ØKh16N15M3B) steel is designed chiefly for tube production. Its yield point, tensile strength and other properties are sufficiently high at 20 and 600°C. Since, however, occasionally melts of this steel do not behave up to expectations, the authors experimentally investigated the effect of different conditions of its production on its resistance to the formation of hot cracks in the near-weld zone and in the weld metal. Some melts were obtained in a 20-ton arc furnace and others in a 50-kg induction furnace on either using fresh charge (carbon steel or armco iron plus alloy elements) with oxidation of slag or remelting the alloyed wastes with addition of oxygen. Alloying with either alloy metals (Cr metal, Nb metal, Mo metal) or ferroalloys (ferrochrome, ferronitobium, fer-

Card 1/27 27 27 UDC: 621.791.75:621.746.76

I 9538-66

ACC NR: AP5026288

romolybdenum) was employed. Specimens of these steels were subjected to torsional fracture tests at 1250°C, since such tests satisfactorily simulate the conditions of the thermal welding cycle in the near-weld zone along with the formation of hot cracks. Findings: the melts of steel to which alloy metals were added displayed higher technological qualities and contained smaller amounts of impurities and hence also were more resistant to the formation of hot cracks than the melts to which industrial ferroalloys were added. Orig. art. has: 1 figure, 5 tables.

SUB CODE: 11,13/ SUEM DATE: 25Jul64/ ORIG REF: . 008/ OTH REF: 000

Card

gc
2/2

RUSSIYAN, A.V., kand. tekhn. nauk; SAKHARNOV, A.A., inzh.

Rapid quantitative determination of the resistivity of metal
to hot crack formation during welding. Sver. proizv. no.3:
11-13 Mr '65. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metal-
lurgii imeni I.P.Bardina.

RUSSIYAN, A.V., kand. tekhn. nauk; SAKHARNOV, A.A., inzh.

Unit for the electric contact heating of hard-to-work alloys
during drawing. Stal' 25 no.4:379 Ap '65. (MIRA 18:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii.

L 31323-66 EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP5026288

SOURCE CODE: UR/0125/65/000/010/0007/0011

AUTHOR: Russiyan, A. V. (Candidate of technical Sciences); Salautin, V. A. (Engineer); Pavperova, I. A. (Engineer); Gnuchev, S. M. (Candidate of technical sciences)

ORG: ToNIChM

TITLE: Resistance of austenitic steel EI847 to the formation of hot cracks during welding as a function of melting technology

SOURCE: Avtomaticheskaya svarka, no. 10, 1965, 7-11

TOPIC TAGS: austenitic steel, hot crack, weld defect, metallurgic furnace, arc furnace, induction furnace, ferroalloy / EI847 (OKh16N15M3B) austenitic steel

ABSTRACT: The purely austenitic EI847 (OKh16N15M3B) steel is designed chiefly for tube production. Its yield point, tensile strength and other properties are sufficiently high at 20 and 600°C. Since, however, occasionally melts of this steel do not behave up to expectations, the authors experimentally investigated the effect of different conditions of its production on its resistance to the formation of hot cracks in the near-weld zone and in the weld metal. Some melts were obtained in a 20-ton arc furnace and others in a 50-kg induction furnace on either using fresh charge (carbon steel or armco iron plus alloy elements) with oxidation of slag or remelting the alloyed wastes with addition of oxygen. Alloying with either alloy metals (Cr metal, Nb metal, Mo metal) or ferroalloys (ferrochrome, ferroniobium, fer-

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UDC: 621.791.75:621.746.76

L 31323-66

ACC NR: AP5026288

romolybdenum) was employed. Specimens of these steels were subjected to torsional fracture tests at 1250°C, since such tests satisfactorily simulate the conditions of the thermal welding cycle in the near-weld zone along with the formation of hot cracks. Findings: the melts of steel to which alloy metals were added displayed higher technological qualities and contained smaller amounts of impurities and hence also were more resistant to the formation of hot cracks than the melts to which industrial ferroalloys were added. Orig. art. has: 1 figure, 5 tables.

SUB CODE: 11,13/ SUBM DATE: 25Jul64/ ORIG REF: 008/ OTH REF: 000

Card 2/2 *jt*

1. A1097-66 EWT(M)/EWP(K)/EWP(W)/V/EMP(V)/EWP(S)/ETI ISP(c) JC/NJW/JE/EM
ACC NR: AT6026559 SOURCE CODE: UR/2776/66/000/046/0234/0243

AUTHOR: Russiyan, A. V.; Sakharnov, A. A.

51
50
BTJ

ORG: none*

TITLE: Development of filler wires used in welding of KhN60MVTYu (EP202)
alloy

SOURCE: *Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
Sbornik trudov, no. 46, 1966. Spetsial'nyye stali i splavy (Special steels and
alloys), 234-243

TOPIC TAGS: nickel alloy, chromium containing alloy, metal welding, inert gas
welding, alloy weld property, weld-hot-cracking/KhN60MVTYu (EP202) nickel alloy

ABSTRACT: The effects of alloying elements and welding conditions on the suscepti-
bility to hot cracking and strength of KhN60MVTYu alloy welds has been investigated.
Six series of small, 10 kg, alloy heats containing 0.01—0.06% C, 0.02—0.5% Si, 1
0.04—0.5% Mn, 17—20% Cr, 3.2—6.5% W, 2.3—5.0% Mo, 1.8—5.1% Ti, 0.7—2.3% Al, and
0—0.006% B were tested. Two heats also contained 5.0 and 10% cobalt. It was
determined that a decrease of boron content below 0.003—0.004% and an increase of
molybdenum content to at least 4% in the filler wire increases the strength of the
crystallizing metal and, consequently, reduces the susceptibility to hot cracking in the
metal. Tungsten at contents of 3.15—6.5% and cobalt at contents up to 10% do not affect

Card 1/2

J. 41097-66

ACC NR: AT6026559

the susceptibility to hot cracking. The total aluminum and titanium content should not exceed 5.0—5.4%. The optimum composition of the filler or electrode wire was set as follows: 0.02—0.04% carbon, 0.2% silicon, 0.2% manganese, 17—20% chromium, 4—5% tungsten, 4—5% molybdenum, 3.7—3.9% titanium, 1.3—1.5% aluminum, and 0.01% cerium. Because the aging procedure greatly affects the sensitivity to cracking, this alloy should be welded in the as-annealed condition. Multilayer welds should be welded with the lowest possible heat input, and each layer should be cooled off before the deposition of the next layer. Manual welding should be avoided. In MIG welding, the electrode wire should be 1.0—1.6 mm in diameter and the argon should be of the first grade of purity. Automatic welding is preferred. Welded joints made in a disk-shaped part 20 mm thick were tested at 850C. The as-welded joints had a tensile strength of 51 kg/mm² and withstood 21 min under a stress of 30 kg/mm². Aging (850C, 15 hr) increased the strength to 59 kg/mm². Aged joints withstood 12.5 min under a stress of 35 kg/mm². Fully annealed (1200C, 4 hr) joints had a strength of 59 kg/mm² and withstood 16.5 min under a stress of 40 kg/mm². Orig. art. has: [TD]
6 figures and 5 tables.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5056

Card 2/2 h3

RUSSIYAN, S.V.

15 18
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AE2C

Experience in the Use of Ceramic Moulds and Shell Cores for Casting Large and Thin-Walled Parts S. V. Russiyan and V. N. Bordanov. (*Liténos Proizvodstvo*, 1958, (4), 4-7). (In Russian). A procedure has been developed and tested in which large and thin-walled objects, such as cast-iron baths, are cast with the use of long-service ceramic moulds and bakelite-base shell cores. The introduction of the new technique in place of the ordinary mould and core practice reduced mould-mix consumption to 1/13 or 1/15, the labour involved in mould preparation and coating removal to about 1/3 and for cleaning to 1/8-1/10. Time spent on maintenance and on operation of ancillary processes was reduced by 30-40% and there was great improvement in the working conditions at the foundry.—S. K.

RM

HUSSEYAN, Stanislav Vladislavovich; GOLOVANOV, Nikolay Nikolayevich;
MALAKHOVSKIY, G.V., nauchnyy red.; SHAURAK, Ye.N., red.;
SHISHKOVA, L.M., tekhn. red.

[Lost-wax process of precision casting] Proizvodstvo tochnogo
lit'ia po vyplavljaemym modeliam, Leningrad, Gos. soizuznoe
izd-vo sudostroit. promyshl., 1958. 345 p. (MIRA 11:9)
(Precision casting)

RUSSIYAN, S.V.; GOLOVANOV, N.N.; LEBEDEV, K.P., otvetstvennyy redaktor;
LITVINOV, L.F., redaktor; FRUMKIN, P.S., tekhnicheskiy redaktor

[Technology and organization of precision casting] Tekhnologiya i
organizatsiya proizvodstva tochnogo lit'ia. [Leningrad] Gos. izd-vo
sudostroit. lit-ry, 1953. 138 p. [Microfilm] (MIRA 9:9)
(Precision casting)

RUSSIYAN, S. V.

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Tekhnologiya i organizatsiya proizvodstva tochnogo lit'ya (Technology and organization of the production of precision casting, by) S. V. Russiyan i N. N. Golovanov.

Leningrad, Sudpromgiz, 1953.

138 p. illus., diags., tables.

"Literatura": p. 136-(137).

RUSSIYAN, S.V.; BARANOV, I.A.; GOLOVANOV, N.N.; SOKOLOV, A.N., LIBMAN,
S. Ye., kandidat tekhnicheskikh nauk, redaktor; EL'TSUFIN, S.A.
DLUGOKANSKAYA, Ye.A., tekhnicheskiy redaktor.

[Planning technical founding processes] Proektirovanie tekhnolo-
gicheskikh protsessov liteinogo proizvodstva. Moskva. Gos.nauchno-
tekhn. izd-vo mashinostroif. lit-ry, 1951. 304 p. (MLRA 8:8)
(Founding)

RUSSIYAN, S.V.

PHASE I BOOK EXPLOITATION

312

Golovanov, Nikolay Nikolayevich

Proyektirovaniye tsekhov tochnogo lit'ya (Design and Layout of Precision Investment Casting Foundries) Leningrad, Sudpromgiz, 1957. 230 p. 2,500 copies printed.

Resp. Ed.: Russiyan, S. V.; Ed.: Krugova, Ye. A.; Tech Ed.:
Kontorovich, A. I.

PURPOSE: This book is intended for engineers, designers, and other technical personnel working in the precision-casting field. It may also be used as a textbook for students of institutes of technology and of universities.

COVERAGE: This book deals with the design and manufacture of precision castings with the use of the most modern machinery and equipment. The author claims that by proper use of precision castings a saving of about 50% can be achieved, since precision castings require very little machining. The precision-casting method is said to effect great

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savings in material and man-hours, especially in the manufacture of turbine blades. The book contains numerous technical and production data; machines and equipment are illustrated and the selection of production items is discussed. Most data were obtained by the Vsesoyuznyy proyektno-tekhnologicheskii institut (All-union Institute of Technology and Design). Ginsburg, Ye. I., Eng., and Fedorenko, L. N., Eng., contributed to this work. They were assisted by Russiyan, S. V., Eng.

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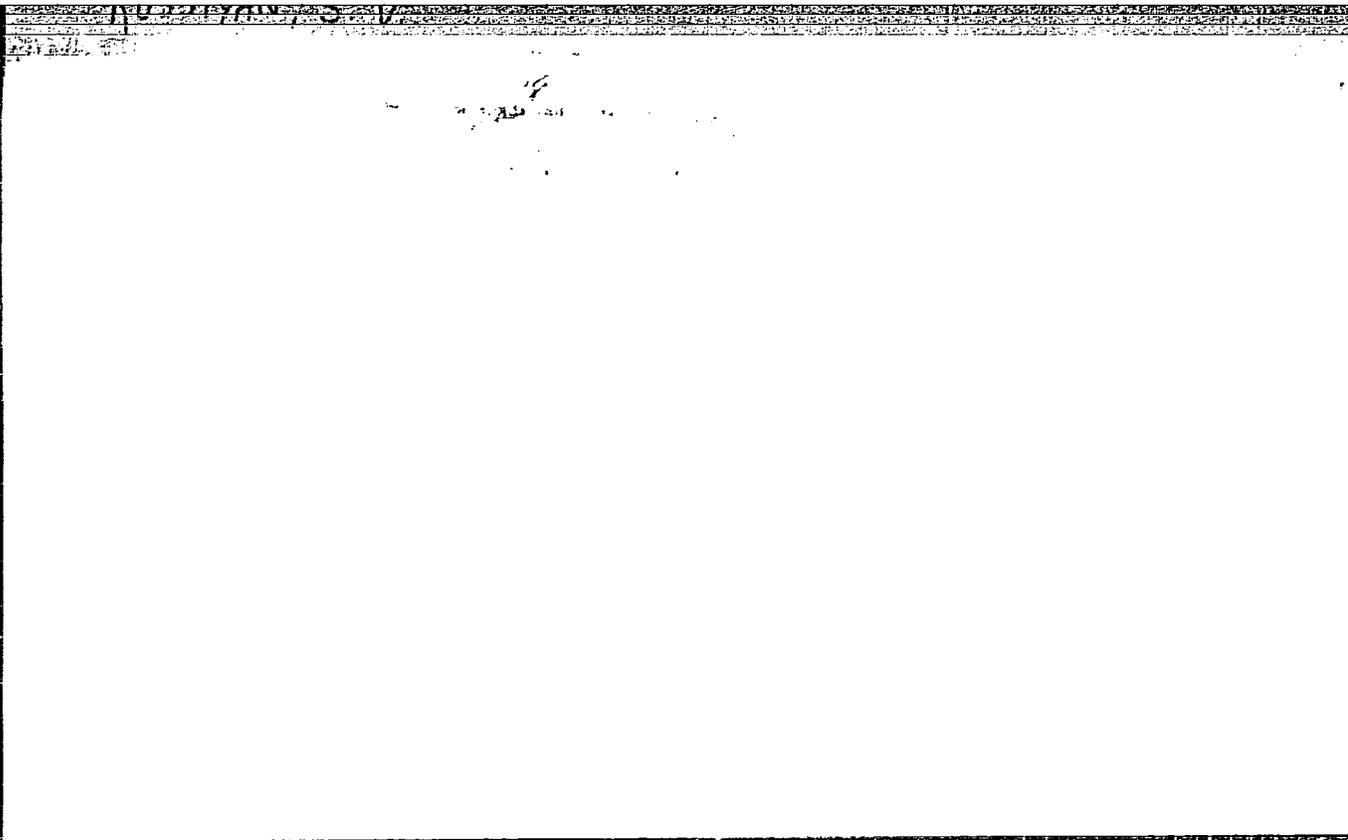
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RUSSIIAN, S.V.

GOLOVANOV, Nikolay Nikolayevich; RUSSIIAN, S.V., otvetstvennyy red.;
KRUGOVA, Ye.A., red.; KONTOPOVICH, A.I., tekhn.red.

[Designing shops for precision casting] Proektirovanie tsekhov
tochnogo lit'ia. Leningrad, Gos.soiuznoe izd-vo sudostroit.
promyshl., 1957. 230 p. (MIRA 11:1)

(Precision casting)

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Use of carbamide cores for the precise casting of parts with a complicated internal cavity. Lit. proizv. no.6:26-27 S '54. (MIRA 7:10)
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June 1954
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Tekhnologiya i organizatsiya proizvodstva tochnogo lit'ia [Technology and organization of precision casting]. Leningrad, Sudpromgiz, 1953. 139 p.

SO: Monthly List of Russian Accessions. Vol. 6 No. 2 March 1954.

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Proektirovanie tekhnologicheskikh protsessov liteinogo proizvodstva (Planning technical founding processes). Leningrad, Mashgiz, 1951. 304 p.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED

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Journal of the Iron and Steel
Institute
Vol. 176 Part 3
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Foundry Practice

Calculation and Construction of Gating Systems for Castings
Made by the Lost-Wax Process. S. V. Russiyak and N. N.
Golovnyov. (*Литейное Производство*, 1953, (8), 5-8). (In
Russian). Examples are given showing the importance of
correct design of gating systems for casting by the lost-wax
process, and an appropriate method of calculation is suggested.
Equations for finding mould filling time and the total feeder
cross-sectional area are presented together with values of the
coefficients for steel and cast iron.—S. E.

RUSSIAN, S. V.

CIA

Author: Russian, S.V.

Title: Technical Standards in the Foundry Industry
168 pp.

Date: 1949. Moscow

Subject: 1. Founding. 2. Founding - Tables, Calculation, etc.

Available: Library of Congress, Call No: TS235.R8

Source: Lib. of Cong. Subj. Cat., 1950 V2

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RUSSIYAN, Tat'yana, master sporta

Breaking records. Kryl. rod. 16 no.3:11-12 Mr '65.

(MIRA 18:5)

KADNIKOV, Vladimir Gennad'yevich; TSYGANKO, L.Z., inzh., retsenzent; LIP-
NITSKIY, A.M., red.; RUSSIYAN, S.V., inzh., red.; KUREPINA, G.N.,
red. izd-va; PETERSON, M.M., tekhn. red.

[Machine molding] Mashinnaya formovka. Pod obshchei red. A.M.Lip-
nitskogo. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1961. 68 p. (Biblioteka liteishchika, no.4) (MIRA 14:10)
(Machine molding (Founding))

SIVERGIN, Yu.M.; FROLOV, P.V.; RUSSIYAN, Ye. K.

Standardize the method for determining the hardness of plastics.
Standartizatsiia 29 no. 11:51-52 N '65 (MIRA 19:1)

L 07893-67

ACC NR: AF6021635

(N)

SOURCE CODE: UR/0089/66/020/003/0279/0281

AUTHOR: Brazhnikov, Ye. M.; Dzantiyev, B. G.; Popov, V. N.; Russiyan, Ye. K.; Shalomeyev, A. S.

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ORG: none

TITLE: Installation for the investigation of processes of chemonuclear synthesis under laboratory conditions

SOURCE: Atomnaya energiya, v. 20, no. 3, 1966, 279-281

TOPIC TAGS: chemical synthesis, chemical energy conversion, fission product, radiation chemistry/ KhYaU-4 chemical synthesis unit, IRT nuclear reactor

ABSTRACT: The article deals with a possible direct use of atomic energy by transforming the energy of the fission fragments directly into chemical energy, bypassing intermediate energy forms such as mechanical, thermal, or electrical. In such a process, a mixture of simple gases passes through a chemonuclear unit, which is essentially a flow-through fuel element. The radiation produces radiation-chemical reactions that produce the end products. An example is the production of NO₂ from air under the influence of radiation. The authors describe special devices for the production of chemonuclear synthesis constructed at the Institute of Chemical Physics AN SSSR, in particular a circulating chemonuclear installation (KhYaU-4) intended to investigate synthesis in the gaseous phase under laboratory conditions. The apparatus constitutes a closed loop in which the gas mixture is circulated by a com-

UDC: 621.039: 541.15

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